



Essex County and the Town of Tappahannock

Water Source Overview

Major water sources are groundwater wells, the Rappahannock River, and agricultural ponds.

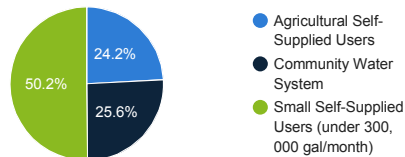
***Table 1:** Reported (2010) and projected (2040) water use by system type for Essex County in MGD

Type	Reported Use 2010 MGD	Projected Use 2040 MGD
Agricultural Self-Supplied Users	0.430	0.430
Community Water System	0.456	0.649
Small Self-Supplied Users (under 300,000 gal/month)	0.892	0.992

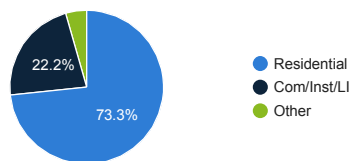
Water Use by System Type

Approximately 7,532 people use private groundwater wells for residential water supply. All tables and graphs represent reported water use including Sales to other localities, if applicable.

***Figure 1:** Percentage of reported water use by system type in 2010 (No use data shown on graph if less than .01 MGD: Refer to Table 1)



***Figure 2:** Disaggregated water use percentages for Community Water Systems in 2010 (No graph shown if no disaggregated use data reported)



***Table 2:** Reported (2010) and projected (2040) groundwater and surface water use for Essex County in MGD

Reported 2010 Groundwater Use (MGD)	Reported 2010 Surface Water Use (MGD)	Projected 2040 Groundwater Use (MGD)	Projected 2040 Surface Water Use (MGD)
1.35	0.43	1.64	0.43

***Figure 3:** Essex County highlighted in the Commonwealth of Virginia



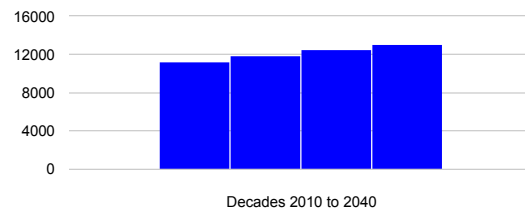
Projected Water Demand

Population and demand are projected to increase through the planning period. Existing water sources are expected to meet projected demands.

***Table 3:** Essex County population projections by decade from 2010 to 2040 (data gathered from VEC projections - 05/20/13)

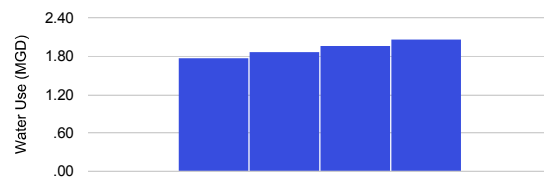
2010	2020	2030	2040	% Change (2010-2040)
11,151	11,884	12,479	13,007	18.2%

***Figure 4:** Essex County population projections by decade for 2010, 2020, 2030 & 2040



***Table 4 & Figure 5:** Essex County water demand trends by decade for 2010, 2020, 2030 & 2040 in MGD

Reported Use 2010 MGD	Projected Use 2020 MGD	Projected Use 2030 MGD	Projected Use 2040 MGD	Percent Change (2010-2040)
1.78	1.88	1.97	2.07	16.5%



Drought Management Practices

Both the County and the Town have adopted ordinances for the implementation and enforcement of the Drought Response and Contingency Plan. (Middle Peninsula Regional WSP)